ABSTRACT OF THE DISCLOSURE

An exhaust emission control apparatus includes a NO_x catalyst provided within an exhaust passage of an internal combustion engine where fuel combustion is continuously performed at a lean air/fuel ratio, and a reducing agent supply valve within the exhaust passage upstream of the NO_x catalyst. If the NO_x stored in the NO_x catalyst is required to be decreased, a selector valve position is selected between a forward and a reverse flow positions so as to decrease a flow rate of the exhaust gas flowing through the NO_x catalyst. Then a reducing agent is supplied upon elapse of a predetermined time period from the timing when the signal instructing to select the position of the selector valve. An oxygen sensor detects an oxygen concentration of the exhaust gas discharged from the NO_x catalyst upon supply of the reducing agent. The elapsing time is corrected such that a peak value of the detected oxygen concentration accords with the target value.